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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,806	01/22/2001	Charles P. Barber	283-269	8417

7590 08/22/2002

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EXAMINER	
PAIK, STEVE S	

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 08/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/766,806	BARBER ET AL.	
	Examiner	Art Unit	
	Steven S. Paik	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 January 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 May 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6,8* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Fig. 1a and Fig. 1b show the reference numerals of 84 and 86. They are not disclosed in the specification. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: the specification includes a few related cases with blank serial number (page2 and page 9). The examiner respectfully requests to fill the missing information when applicant responds to this Office Action. Appropriate correction is required.

3. Brief Description of the Drawings shows the description of Figs. 1a-1e in line 9 on page 5 of the specification. However, the drawings include figures 1f and 1g. Furthermore, applicant has filed 4 sheets of formal drawings (paper No. 4) on May 21, 2001, which is inconsistent with the actual number of sheets in the application. Appropriate correction is required.

4. The disclosure is objected to because of the following informalities: the specification includes explanation of Fig. 1c on page 17, but Fig. 1c is not included either the original drawings submitted at the time of filing or in the paper No. 4. The examiner believes that formal drawings filed on May 21, 2001 contain discrepancy. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang (USP 5,739,518).

Regarding claim 1, Wang discloses a method and system for operating an optical reader having a 2D image sensor (21 and fig. 5, ll. 49-51), the method comprising the steps of:

capturing a partial frame of image data from the 2D image sensor (col. 5, ll. 15-16); and

processing image data of the partial frame of image data. Wang teaches a method for using predetermined sampling patterns (partial frame) to identify a data type and a decoding unit having a capability to implement a plurality of dataform decoding protocols for processing sensed data according to appropriate data type (col. 3, ll. 24-50).

Regarding claim 2, Wang discloses the method and system as recited in rejected claim 1 stated above, where the capturing step includes the step of capturing image data corresponding to a linear pattern of pixels (PDF 417 in Fig. 7 and col. 14, ll. 58-60).

Regarding claim 3, Wang discloses the method and system as recited in rejected claim 1 stated above, where the capturing step includes the step of capturing image data corresponding to a plurality of angularly offset linear pattern of pixels (maxiCode, DataMatrix in Fig. 7).

Regarding claim 4, Wang discloses the method and system as recited in rejected claim 1 stated above, where the capturing step includes the step of capturing image data corresponding to

a plurality of vertically spaced apart horizontally oriented linear patterns of pixels (Code 1 shows a center guard pattern which makes vertical spaces apart horizontally linear patterns of pixels).

Regarding claim 5, Wang discloses the method and system as recited in rejected claim 1 stated above, where the capturing step includes the step of capturing image data corresponding to a grouping of pixels about a center of the image sensor (Fig. 4 and col. 6, ll. 59-67).

Regarding claim 6, Wang discloses the method and system as recited in rejected claim 1 stated above, where the processing step includes the step of reading the image data out of a memory device (82 in Fig. 2 and col. 3, ll. 36-44).

Regarding claim 7, Wang discloses the method and system as recited in rejected claim 1 stated above, where the processing step includes the steps of reading the image data out of a memory device and attempting to decode for a decodable symbol which may be represented in the image data (col. 3, ll. 46-50).

Regarding claim 8, Wang discloses the method and system as recited in rejected claim 1 stated above, where the method further includes the step of capturing a full frame of image data if the processing step reveals that a 2D symbol is likely partially represented in the partial frame of image data (col. 15, ll. 45-50).

Regarding claim 9, Wang discloses the method and system as recited in rejected claim 1 stated above, where the method further includes the step of capturing an adaptively positioned partial frame of image data if the processing step reveals that a 2D symbol is likely partially represented in the partial frame of image data (Wang suggests using a sampling reference (partial image) to decide type of dataform after comparing with reference data. The process generates

identification indicia which activates a decoding protocol suitable for decoding the frame of image of the sampled reference).

Regarding claim 10, Wang discloses the method and system as recited in rejected claim 1 stated above, where the method further includes the step of attempting to decode for a decodable symbol represented in the image data, the method further including the step of capturing a full frame of image data if the processing step reveals that a 2D symbol is likely partially represented in the partial from of image data (col. 13, ll. 15-23).

Regarding claim 11, Wang discloses a method and system for operating an optical reader having a 2D image sensor (21 and fig. 5, ll. 49-51), the method comprising the steps of:

(a) in a partial frame operating mode, capturing a partial frame of image data (col. 2, ll. 61-63); and

(b) attempting to decode a symbol representation of the captured partial frame of image data (col. 3, ll. 17-20); and

(c) switching operation of the reader to a full frame capture mode if the reader fails to decode a symbol representation in step (b). Figure 6B illustrates steps involved with identifying dataforms and attempting to decode them appropriately. The step 128 may include a partial frame of image data, and step 138 may include another. When step 128 fails to find the first dataform, the next step is automatically switched to include the second dataform. This switching step inherently enables the optical reader to operate in a full frame capture mode.

Regarding claim 12, Wang discloses the method and system as recited in rejected claim 11 stated above, where the capturing step includes the step of capturing image data corresponding to a linear pattern of pixels (PDF 417 in Fig. 7 and col. 14, ll. 58-60).

Regarding claim 13, Wang discloses the method and system as recited in rejected claim 11 stated above, where the capturing step includes the step of capturing image data corresponding to a plurality of angularly offset linear pattern of pixels (maxiCode, DataMatrix in Fig. 7).

Regarding claim 14, Wang discloses the method and system as recited in rejected claim 11 stated above, where the capturing step includes the step of capturing image data corresponding to a plurality of vertically spaced apart horizontally oriented linear patterns of pixels (Code 1 shows a center guard pattern which makes vertical spaces apart horizontally linear patterns of pixels).

Regarding claim 15, Wang discloses the method and system as recited in rejected claim 11 stated above, where the capturing step includes the step of capturing image data corresponding to a grouping of pixels about a center of the image sensor (Fig. 4 and col. 6, ll. 59-67).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Matsushima et al. (USP 4,818,856) disclose an apparatus for reading optical information such as a bar code capable of reflecting ambient light.

Swartz et al. (USP 5,621,203) disclose a method for reading two-dimensional bar code symbols.

Yang et al. (USP 6,360,948) disclose a method of reading two-dimensional code having location symbols and alignment symbols.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven S. Paik whose telephone number is 703-308-6190. The examiner can normally be reached on Mon - Fri (7:00am-3:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.

Steven S. Paik
Examiner
Art Unit 2876

ssp
August 16, 2002

MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Form PTO 1449 US DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty Docket No. 283-269	Serial No.
	Applicant Charles P. Barber et al.	
	Filing Date January 22, 2001	Group 2876

U.S. PATENT DOCUMENTS

Exam Initial		Document Number	Date	Name	Class	Sub Class	Filing Date
SSP	AA	5,710,417	01/20/1998	Joseph et al.	235	462	
SSP	AB	5,929,418	07/27/1999	Ehrhart et al.	235	462	
SSP	AC	5,984,186	11/16/1999	Tafoya	235	462.24	

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Sub Class	Translation	Abstract
SSP	AD	WO 93/18478	09/16/1993	WO	—	—		

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages Etc.)

Examiner Steven Ration	Date Considered 8-16-02

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449 US DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty Docket No. 283-269	Serial No. 09/766,806
	Applicant Charles P. Barber et al.	
	Filing Date January 22, 2001	Group 2876

U.S. PATENT DOCUMENTS

Exam. Initial		Document Number	Date	Name	Class	Sub Class	Filing Date
SSP	AA	5,506,880	04/09/1996	Scardino, et al.	—	—	
SSP	AB	5,619,597	04/08/1997	Moreton	—	—	
SSP	AC	5,657,395	08/12/1997	Hirota	—	—	
SSP	AD	5,692,062	11/25/1997	Lareau, et al.	—	—	
SSP	AE	5,717,602	02/10/1998	Kenning	—	—	
SSP	AF	5,739,518	04/14/1998	Wang	—	—	
SSP	AG	5,969,753	10/19/1999	Robinson	—	—	
SSP	AH	6,044,180	03/28/2000	Brandestini, et al.	—	—	
SSP	AI	6,047,085	04/04/2000	Sato, et al.	—	—	
SSP	AJ	6,141,046	10/31/2000	Roth, et al.	—	—	
SSP	AK	6,175,357	01/16/2001	Gordon	—	—	
SSP	AL	6,177,999	01/23/2001	Wurz, et al.	—	—	
SSP	AM	6,229,921	05/08/2001	Wenzel, et al.	—	—	
SSP	AN	6,233,011	05/15/2001	Su	—	—	
SSP	AO	6,240,218	05/29/2001	Michael, et al.	—	—	
SSP	AP	6,246,779	06/12/2001	Fukui, et al.	—	—	
SSP	AQ	6,267,501	07/31/2001	Wand, et al.	—	—	
SSP	AR	6,268,848	07/31/2001	Eglit	—	—	
SSP	AS	6,268,883	07/31/2001	Zehnder, et al.	—	—	
SSP	AT	6,268,918	07/31/2001	Tanabe, et al.	—	—	

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Sub Class	Translation	Abstract

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages Etc.)

Examiner	Date Considered
[signature]	8-16-02

Notice of References Cited	Application/Control No. 09/766,806	Applicant(s)/Patent Under Reexamination BARBER ET AL.	
	Examiner Steven S. Paik	Art Unit 2876	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-4,794,239 ✓	12-1988	Allais, David C.	235/462.1
	B	US-6,360,948 ✓	03-2002	Yang et al.	235/375
	C	US-5,979,768 ✓	11-1999	Koenck, Steven E.	235/462.12
	D	US-5,621,203 ✓	04-1997	Swartz et al.	235/462.11
	E	US-4,818,856 ✓	04-1989	Matsushima et al.	235/454
	F	US-5,739,518 ✓	04-1998	Wang, Ynjiun P.	235/462.09
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.